ethylene/1-octene weight ratio = 82/18 (5.5 mol% of 1-octene); d = 0.885 g/cm^3; MFI = 1.0 g/10'; CDI > 70 %; ΔH_{2f} = 55.6 J/g;

Moplen® EP1X35HF - random crystalline propylene/ethylene copolymer:

d = 0.900 g/cm^3; MFI = 9.0 g/10'; T_{2f} = 154°C; ΔH_{2f} = 90.6 J/g;

Hydrofy® G 1.5 - natural magnesium hydroxide, obtained by grinding brucite, not surface-treated (SIMA company) with specific surface area: 10.4 m^2/g;

Hydrofy® G 1.5S - natural magnesium hydroxide, obtained by grinding brucite, surface-treated with stearic acid (SIMA company) with specific surface area: 10.4 m^2/g;

Silquest® A-172 - coupling agent: vinyltris(2-methoxyethoxy)silane (VTMOEO);

Peroximon® DC40 - peroxidic initiator: dicumyl peroxide;

Irganox® 1010 - antioxidant: pentaerythryl tetrakis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate] (Ciba-Geigy);

Irganox® MD1024 - metal deactivator: 1,2-bis(3,5-di-tert-butyl-4-hydroxyhydrocinnamoyl)hydrazine (Ciba-Geigy);

Kezadol® GR - calcium oxide predispersed in semicrystalline EPR rubber (80 % by weight of CaO), in the form of granules with average diameter 6-7 µm (Kettlitz company).

The results given in Table 1 demonstrate clearly that in the cables produced in the presence of calcium oxide, the flame-retardant coating has excellent mechanical properties. In contrast, the comparative cables, produced without dehydrating agent, show unsatisfactory mechanical properties and are not capable of passing the specifications required for cables of this type (usually a breaking load greater than 12.5 MPa and an elongation at break greater than 125 %). Under visual examination, the comparative cables show a dull

surface with the presence of micropores inside the flame-retardant coating, these defects being entirely absent from the cables produced according to the invention.

CLAIMS

1. Process for producing self-extinguishing cables with low-level production of fumes, which comprises:

(a) preparing a flame-retardant composition comprising a polymer base and an inorganic flame-retardant filler;

(b) extruding said flame-retardant composition on an electrical conductor, which is optionally precoated with an insulating layer, so as to obtain a flame-retardant coating;

characterized in that a dehydrating agent is added to said flame-retardant composition.

2. Process according to Claim 1, in which the dehydrating agent is added during phase (a) of preparation of the flame-retardant composition.

3. Process according to Claim 2, in which the dehydrating agent is added during phase (a) of preparation of the flame-retardant composition after a first phase of mixing the composition at a predetermined temperature and for a predetermined time so as to reduce the moisture content present in the flame-retardant filler.

4. Process according to Claim 1, in which the dehydrating agent is added during phase (b) of extrusion of the flame-retardant composition.

5. Process according to any one of the preceding claims, in which the dehydrating agent is added to the flame-retardant composition in divided form.

6. Process according to any one of the preceding claims, in which the dehydrating agent is added to the